

HELCOM

BRISK

NEWS 1/10

SUB-REGIONAL RISK OF SPILL OF OIL AND HAZARDOUS SUBSTANCES IN THE BALTIC SEA

**BETTER RESOURCES TO COMBAT OIL SPILLS
OVERALL RISK ASSESSMENT OF SHIPPING ACCIDENTS
BRISK GOES TO RUSSIA | 130 ACCIDENTS ANNUALLY**



BETTER RESOURCES TO COMBAT

The project **Sub-regional risk of spill of oil and hazardous substances in the Baltic Sea (BRISK)** will increase the preparedness of Baltic Sea countries to combat major spills of oil and hazardous substances caused by shipping activities. Early and well organized response operations are a very effective tool for reducing the environmental effects of polluting accidents.

The BRISK project covers all transnational maritime areas in the Baltic Sea, divided into six sub-regions. The project will:

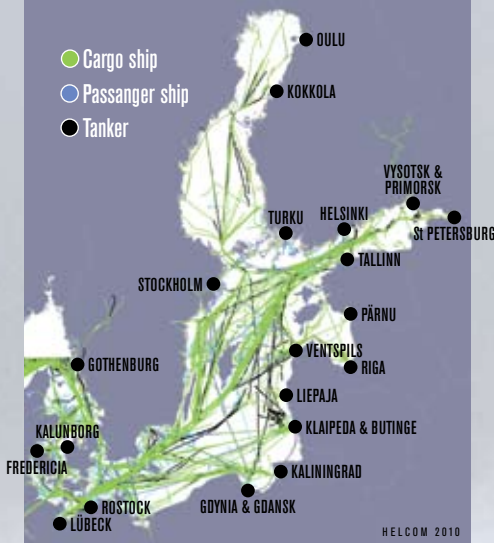
- provide the first overall risk assessment to cover pollution caused by shipping accidents throughout the Baltic Sea,
- identify gaps in the resources needed to effectively tackle major spills of oil and hazardous substances,

- plan joint investments to improve response capacities, and
- speed up the development of transnational agreements for joint response operations.

The BRISK project will last three years (2009-2012) and it is co-financed by the European Union within the Baltic Sea Region (BSR) Programme 2007-2013.

OVERALL RISK ASSESSMEN

SHIP TRAFFIC IN THE BALTIC SEA DURING ONE DAY IN NOVEMBER 2008



The BRISK project represents the first overall risk assessment to cover oil and hazardous substances pollution caused by shipping accidents throughout the Baltic Sea. The assessment will map areas with the highest risk of pollution and environmental damage, applying the same method for the entire Baltic Sea.

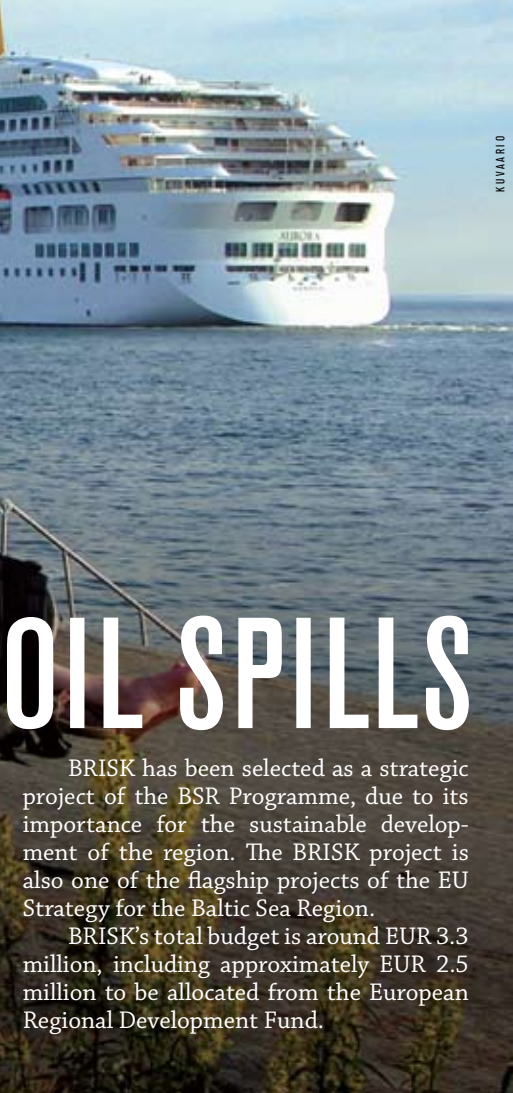
The increased risk of pollution due to shipping accidents is of great concern throughout Europe and particularly in the Baltic Sea. No comprehensive Baltic-wide analysis based on common methodology has yet been conducted to check whether existing response resources are sufficient to tackle major spills of oil or hazardous substances. Building a common understanding of the concepts of risk and damage will be the first important step towards improving response capacities in each of the six sub-regions of the Baltic.

Quantifying environmental impacts

The project's risk analysis is based on current shipping traffic information as well as forecasts of future trends. It describes the sources, frequency, types, quantities and locations of marine pollution.

Once a polluting substance has been released, it inevitably begins to spread. Different substances may float, evaporate, sink or dissolve unless their spread can be contained by national emergency response forces. All of these processes are included in the analysis. The resulting pollution risk estimates are expressed in grammes of oil per square kilometer per year, and these figures will be compiled to create a pollution impact map of the entire Baltic Sea.

The risk analysis will also quantify environmental vulnerability with respect to oil spills, to create a vulnerability map. The map will include spatial data on internationally protected areas, feeding areas used by migratory birds, spawning areas used by



KUVAARIO

OIL SPILLS

BRISK has been selected as a strategic project of the BSR Programme, due to its importance for the sustainable development of the region. The BRISK project is also one of the flagship projects of the EU Strategy for the Baltic Sea Region.

BRISK's total budget is around EUR 3.3 million, including approximately EUR 2.5 million to be allocated from the European Regional Development Fund.



ALEXEI BUGAKOV

BRISK GOES TO RUSSIA

Balex Delta Exercise in Kaliningrad, Russia.

The BRISK-RU Project, financed by the Nordic Council of Ministers, will carry out activities in the Russian Federation complementary to the BRISK activities in the remaining eight Baltic Sea countries. Its overall aim is to contribute to improved response capacities in the Gulf of Finland and Kaliningrad Oblast through the joint implementation of the HELCOM Baltic Sea Action Plan. The BRISK-RU budget amounts to EUR 200,000.

The Central Marine Research & Design Institute Ltd. in St. Petersburg is the Lead Partner of the project, which is coordinated by the Information Office of the Nordic Council of Ministers.

T OF SHIPPING ACCIDENTS

fish, aquaculture facilities, fishing grounds, the distributions of marine mammals, and the locations of archipelagos and shallow waters, as well as major settlements, popular bathing beaches and rocky shores.

Environmental risks can then be calculated by combining the information from the two separate maps of pollution impacts and environmental vulnerability.

Effects of risk-reducing measures considered

One central feature of the risk analysis is that it also includes the effects of oil spill response capacity. This enables the effects of different response activities to be modelled, facilitating the channeling of



specific investments in each sub-region to obtain a balanced and sufficient response capacity covering the entire Baltic Sea. The analysis will also identify strategies for cost-efficient risk reductions, thus providing useful guidelines for future investments in emergency response capacities.

The analysis will take a number of further risk-reducing measures into account in addition to oil spill response. These include the use of pilots, the implementation of traffic separation schemes, escort towing and twelve other measures. Here, too, it is possible to run the analysis for different future policy scenarios to support decision-making processes.

The collection of the data from each BRISK project partner and the establishment of the analytical model will be completed by June 2010. The actual risks will then be calculated and the need for additional resources will be determined, by September 2011.

VASTAVALO



130 ACCIDENTS ANNUALLY

Each year around 120–140 shipping accidents occur in the Baltic Sea area. On average, 7% of the accidents result in some kind of pollution, usually containing not more than 0.1 – 1 tonnes of oil. For the last six years, no major oil spill has happened in the Baltic Sea.

The number of incidents has risen since 2006 due to a 20% increase in ship traffic. Cargo vessels are the main group of ships involved in accidents (45% in 2008), followed by passenger ships (18%) and tankers (10%).

The biggest share of the reported accidents is the result of human factors, followed by technical and external factors. Almost all accidents occur very close to shore or in harbours.

Due to many shallow areas, especially in the Danish straits, the Baltic Sea is much more difficult to navigate than many other areas in Europe. Therefore, the share of groundings in the total number of accidents is higher in the

Baltic Sea than in EU waters. In 2008, 60 groundings were reported by HELCOM countries, accounting for 44% of the total number of accidents. Some 58% of all groundings registered in 2000–2008 took place in the south-western Baltic Sea, including the Danish straits.

Collisions are the second most frequent type of shipping accidents in the Baltic Sea, amounting to 41 cases (30%) of all accidents in 2008 and 288 cases (32%) for the period 2000–2008. Ship to ship collisions accounted for 39% of all collision cases in 2008, and their number has almost halved since 2005–2006. Approaches to ports and the Danish straits are the most risky areas for ships to collide.

The Baltic Sea is an area of heavy maritime traffic, which has grown remarkably during recent years, and is predicted to grow also in the future. This rise in shipping is resulting in increasing risks of major pollution accidents, which could have a devastating impact on the marine environment.

BRISK PARTNERS

DENMARK

- Admiral Danish Fleet Headquarters (lead partner)

ESTONIA

- Estonian Board of Border Guard

FINLAND

- Finnish Environment Institute

GERMANY

- Central Command for Maritime Emergencies

LATVIA

- Marine and Inland Waters Administration of the Ministry of Environment

LITHUANIA

- Coastal Research and Planning Institute, Klaipeda University

POLAND

- Maritime Institute in Gdansk
- Maritime Office in Gdynia

SWEDEN

- Swedish Coast Guard Headquarters

HELSINKI COMMISSION

BRISK-RU PARTNERS

- The Central Marine Research & Design Institute Ltd., St. Petersburg (lead partner)
- Information Office of the Nordic Council of Ministers in Kaliningrad (coordinator of the project)



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